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*Mayor*

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WILLIAM F. SINNOTT  
*Corporation Counsel*

October 21, 2009

Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, DC 20544

RE: GN Docket No. 09-51

Dear Secretary Dortch:

On October 16, I emailed Jessica Strott, Consumer Adoption Analyst, National Broadband Task Force. My email outlined certain proposed Boston initiatives that I thought may be of interest to the FCC in the context of development of the national broadband plan.

Attached to my email was a letter sent by Governor Deval Patrick to NTIA endorsing Boston's 3 consolidated BTOP grants. The Governor's letter cited to the way those grants "...work together to address digital inclusion, sustainable broadband adoption and public safety." The Governor's letter pointed out the usefulness of Boston's planned broadband network for a health and wellness initiative by a leading community health center. The Governor's letter also described the online learning readiness training program for out of work adults that will be operated in 10 Timothy Smith Network (TSN) centers in Roxbury. My email included contact information for the Director of the TSN should the FCC have an interest in speaking with her about this program or other broadband training programs that TSN operates.

Sincerely,

Donna Sorgi  
Senior Assistant Corporation Counsel  
(617) 635-4097  
[donna.sorgi@cityofboston.gov](mailto:donna.sorgi@cityofboston.gov)

cc: Jessica Strott

TEL.: (617) 635-4034 FAX: (617) 635-3199

**Sorgi, Donna**

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**From:** Sorgi, Donna  
**Sent:** Friday, October 16, 2009 10:12 AM  
**To:** 'Jessica.Strott@fcc.gov'  
**Subject:** National Broadband Plan – other Boston initiatives of possible interest  
**Attachments:** BTOP Prioritization Letter (final).pdf; ExSummary Sustainable Adoption 1804.pdf

Jessica, per our conversation, the following information about certain proposed Boston initiatives may be of interest to the FCC in the context of development of the national broadband plan.

The attached letter sent by MA Governor Deval Patrick to NTIA endorsing Boston's 3 consolidated BTOPs grants cites to the way Boston's grants "...work together to address digital inclusion, sustainable broadband adoption, and public safety." The Governor singles out the usefulness of the planned broadband network by one of Boston's most prominent community anchor health centers which plans to use broadband for wellness and health care management with its clients. The Governor offers his belief that Boston's 3 grants will "... make Boston a replicable urban showcase that fulfills the goals of President Obama and Congress in ARRA."

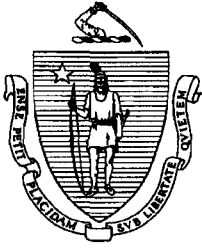
The Governor highlights the online digital training program that the Timothy Smith Networks (TSN) will operate if we secure BTOPs funding. This program will train out of work adults in 10 centers in Roxbury in online skills needed to secure employment and manage as employees in a digital workplace. We project placement of up to 300 graduates in such jobs and will send each graduate home with a netbook computer. This proposed program is briefly described in the Governor's letter and there is a bit more detail about it in the attached Executive Summary from our Sustainable Broadband grant. The Director of TSN is Susan O'Connor. She can be contacted at [smoconnor@timothysmithnetwork.org](mailto:smoconnor@timothysmithnetwork.org) or at 617-968-3653 and she would be happy to provide more detail about the Online Learning Readiness program. TSN is funded by a City Trust. More details available on the TSN website.

To the extent any or all of these programs may be of interest to the FCC as you construct the National Broadband Plan, I wanted highlight them for you. I would be happy to supply any additional information in that docket that might be helpful.

Continued best wishes. Donna

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10/21/2009



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**DEVAL L. PATRICK**  
GOVERNOR

**TIMOTHY P. MURRAY**  
LIEUTENANT GOVERNOR

October 14, 2009

VIA ELECTRONIC DELIVERY

Mr. Lawrence E. Strickling  
Assistant Secretary for Communications and Information  
National Telecommunications and Information Administration  
United States Department of Commerce  
1401 Constitution Avenue, N.W.  
Washington, DC 20230

Re: Massachusetts BTOP Prioritization

Dear Assistant Secretary Strickling:

In response to your letter of September 18, I would like to take the opportunity to comment on the Broadband Technology Opportunities Program (BTOP) applications that propose broadband projects within Massachusetts to be funded by the American Recovery and Reinvestment Act (ARRA). The National Telecommunications and Information Administration (NTIA) was authorized to consult with states regarding the identification of unserved and underserved areas within their borders and the allocation of grant funds to projects affecting each state. Accordingly, the NTIA is affording every state the opportunity to prioritize BTOP applications and explain why certain applications meet the greatest needs of the state. This letter indicates those projects I consider to be both the highest priorities for the Commonwealth and the closest fit to the goals outlined by your office.

Upon receipt of your letter, my team immediately commenced our review of the BTOP applications. To assure transparency, we communicated to all relevant BTOP applicants the members of our review team along with the process and timeline for responding to the NTIA. We

provided a process that allowed applicants to submit supplementary information for our consideration. My review team members were drawn from individuals within my administration with broadband expertise – from the Massachusetts Executive Office of Housing and Economic Development, Executive Office of Public Safety and Security, Department of Telecommunications and Cable, Information Technology Division, and Recovery and Reinvestment Office.

Applications were evaluated across the three BTOP categories – infrastructure, public computing centers, and sustainable broadband adoption. In addition to using criteria outlined by the NTIA, we evaluated the applications according to the needs in the proposed service area(s), the credibility and sustainability of the proposed projects, the number of jobs to be created, and the extent to which the projects would incentivize private investment. We looked for those applications that leveraged existing assets and had the best likelihood of maximum impact where our needs are most acute.

I am pleased to report that we have no shortage of very strong BTOP applications from Massachusetts. This is not surprising given our long-standing efforts to address broadband deficiencies in Massachusetts to ensure that all of our citizens can compete, grow, and succeed in a 21<sup>st</sup> century global economy. Broadband has been a central focus of my economic development efforts since I became Governor.

After deliberation, including consideration of which applications on their merits have the best chances when scored against the NTIA's own evaluation criteria, the following are my highest priority applications:

- the western Massachusetts applications, under the coordination and leadership of the **Massachusetts Broadband Institute (MBI)**;
- the **OpenCape** application; and
- the consolidated **City of Boston** applications.

In addition to the strength of these applications, they meet the greatest needs of the Commonwealth. Collectively, these projects are shovel-ready, will create measurable jobs immediately, and balance and address the Commonwealth's diverse broadband needs – in both unserved and underserved communities. Project summaries, along with a more detailed explanation of why these applications are my highest priority, are provided in the addendum to this letter.

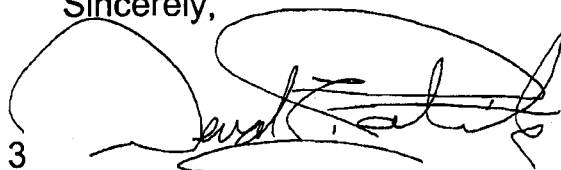
I am indicating as my highest priority our strongest infrastructure proposals (and their synergistic and complementary sustainable broadband adoption and public computing center applications) that focus on geographic areas of Massachusetts where the need is greatest. I believe these applications demonstrate the Commonwealth's leadership on broadband on all fronts, and, collectively, these applications support the NTIA's overall goals of addressing unserved communities, underserved communities, and increasing broadband adoption in all areas.

It is important to note that these applications do not arise out of work performed following the passage of ARRA. Rather, they reflect many years of engagement in Massachusetts – studying the current status of broadband infrastructure, working with stakeholder groups identifying barriers to deployment, developing sustainable solutions, and then working together to make them happen. I am confident that Massachusetts has applications that reflect some of the most outstanding and innovative collaborations and programs in the nation.

Finally, I should note that these recommendations reflect our consistent approach in Massachusetts to use ARRA funds to produce jobs for today and tomorrow. Through much planning and collaboration with communities and other partners, Massachusetts has strategically focused on ambitious projects leveraging lasting, long-term economic development, and job growth rates. The BTOP applications I have identified collectively as our highest priority are examples of complex projects that have benefitted from this advance planning – they are ready to go and will make the greatest economic development impact for the Commonwealth.

Thank you again for the opportunity to communicate what I believe reflects the needs of, and my priorities for, Massachusetts. The applications I have discussed best address the balanced and diverse needs of Massachusetts. Please know that we are standing by and ready to assist in any additional way, if needed. Massachusetts is committed to working with you and your team to help ensure that BTOP fulfills the goals of ARRA to expand and enhance broadband capabilities in the United States, create jobs, and create a new foundation for growth in America. We look forward to the BTOP award announcements and putting the stimulus money to work soon.

Sincerely,

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ADDENDUM  
Massachusetts BTOP Prioritization

***Massachusetts Broadband Institute Partnership***

The mission of the Massachusetts Broadband Institute (MBI) is to extend affordable, high-speed Internet access to all homes, businesses, schools, libraries, medical facilities, government offices, and other public places across the Commonwealth. The MBI was created in August 2008 pursuant to the Massachusetts Broadband Act, legislation that I introduced upon my election as Governor. The Broadband Act gives the MBI the authority to invest up to \$40 million of state bond funds in necessary and long-lived infrastructure assets – such as conduits, fiber-optic cable, and wireless towers – and these funds will permit the MBI to provide the necessary match for its BTOP grant.

The MBI has been engaging with private broadband firms, both large and small, to develop the co-investment partnerships expected to provide service to the public based on the utilization and extension of the MBI's assets. The MBI will make limited and strategic public investments that leverage the use of public dollars to incentivize private investment from providers to supply complete broadband solutions to customers in unserved and underserved areas.

With respect to the MBI's coordinated application, Massachusetts is so often associated with the greater Boston area that many people are unfamiliar with our state's rural, western region. While most residents in eastern Massachusetts have a choice of Internet providers, those in western Massachusetts face substantial gaps in broadband coverage. The small towns and rolling hills of the Pioneer Valley and Berkshires – the very landscape that makes those areas such a uniquely beautiful place – have posed significant hurdles to private expansion of high-speed Internet much in the same way they hampered rural electrification efforts in the last century. According to the BTOP criteria, four western Massachusetts communities are unserved and 39 are underserved. With an average population density of 39 people per square mile (versus a statewide average of 602), it is not surprising that 64% of the households in these 43 communities have no wired broadband available. This application does not tie together disparate, winding groups of census blocks to achieve unserved or underserved status. Rather, these 43 communities are, in their entirety, lacking adequate broadband access.

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### Massachusetts BTOP Prioritization

To close this gap and ensure that the broadband needs of western Massachusetts are met for the next three decades, the MBI proposes to build over the next 2-3 years a 581-mile, carrier-class, fiber-optic middle-mile infrastructure project, providing scalable access from 1.5Mbps to 40Gps. It covers a 97% rural service area of 1,591 square miles, roughly one-third of the Commonwealth, and would bring new broadband access to 20,337 households and 5,750 businesses. Numerous anchor institutions, public safety entities, and critical community organizations in the region have expressed interest in being involved with this shovel-ready project and being connected to the network that the MBI proposes to build. Our state public safety and information technology agencies also stand ready to partner with this project, ensuring its effectiveness.

I should note that, to demonstrate our commitment to rapid broadband deployment, and our capacity to get this done, the fiber-optic network proposed by the MBI would build upon a recently announced \$4.3 million, 55-mile segment of MBI fiber currently being deployed along the Interstate 91 corridor in western Massachusetts.

In addition to the MBI's middle-mile infrastructure application, its coordinated application with regional partners will assure that, with broadband services available in select areas of the region and as additional broadband availability is achieved in the unserved and underserved areas, there will be robust activities and programs to support public access to broadband technology and to encourage the adoption of broadband services. In partnership with the MBI, these projects will achieve significantly greater public access and broadband adoption in western Massachusetts.

The applications have been coordinated to ensure that a comprehensive, non-duplicative, successful effort is proposed in western Massachusetts. This coordinated approach will be unique nationally, and it is only possible due to the long history of collaboration and partnership that already occurs in the region.

One project will focus on expanding access and availability of computers and broadband through the creation of centers throughout western Massachusetts. The approach proposed is to create ten computer centers strategically placed in the region to be geographically equitable, to

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### Massachusetts BTOP Prioritization

reach the most densely populated areas of the region and to reach the lowest-income and highest-minority populations in the counties. The more remote areas of the region will be reached through an innovative computer lending system. Training and education programs will be developed and provided in the computer centers by the region's community colleges, public television station, regional educational collaboratives, and by the regional library system, as well as other key organizations, such as regional employment boards. This project provides access to technology and training that will improve the job readiness, quality of life, and life-long learning of thousands of individuals over the course of the project period and beyond.

Another regional project, Get Online! (GO!), will address broadband awareness, education access and service needs for all four counties of western Massachusetts. The long-term lack of connectivity has resulted in a lower level of broadband awareness, skills, and opportunity. Due to both the rural nature of the region and the poverty in areas of its urban core, education, and training opportunities have not been as readily available to many residents and businesses. Similarly, organizations serving vulnerable populations have been hesitant to adopt broadband technology because of their own or their constituents' limited capacity and access. GO! fosters collaboration by facilitating partnerships among organizations to provide more coordinated and joint activities. Efforts have been targeted to support education, healthcare, and child-care services, as well as economic development. Weaving this collaboration into an effective whole with a shared mission and willingness to exchange best practices and information is significantly innovative.

These projects have great potential to bring broadband access equity to western Massachusetts, and they are key to maximizing employment, business, and educational opportunities through the promise of ubiquitous broadband access. The MBI is also the entity I designated from Massachusetts for funding under the Broadband Data Improvement Act (BDIA) to develop broadband inventory mapping and support community initiatives, and they are making great strides already on a statewide broadband mapping project.

Western Massachusetts is where our digital divide is most acute. Upon receipt of BTOP funding, the MBI is particularly well-positioned to

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### Massachusetts BTOP Prioritization

quickly implement its plan and effect the most immediate impact in the area where our need is greatest.

#### ***OpenCape***

OpenCape Corporation is a non-profit entity and community-driven regional advocate for broadband infrastructure expansion on Cape Cod. The Southeast Massachusetts region has a different set of needs than those of a totally rural area (such as western Massachusetts) or a major metropolitan area. It has some minimal services that are not available in rural areas, but it does not have the telecommunications infrastructure it needs to survive and thrive. OpenCape's application focuses on enabling services to underserved areas as well as on the need for commercial-grade broadband for entities with needs for symmetrical upstream and downstream Internet access, such as our world-renowned Woods Hole Oceanographic Institution.

OpenCape proposes to build a system of three components: 1) a 350-mile fiber backbone on Cape Cod with extensions to two major regional network connection centers in Providence and Brockton; 2) a microwave radio overlay for public safety primarily to support the development of a 700Mhz mobility network and backup communications in the event of a storm or hurricane; and 3) a regional colocation center in Barnstable for the aggregation of bandwidth and hosting of critical information servers.

The MBI has allocated \$5 million from its \$40 million bond authorization to support OpenCape's efforts, and this is included in OpenCape's 20% matching requirement in their BTOP application.

#### ***City of Boston***

Beyond the immediate needs of unserved and underserved communities, the consolidated applications from the City of Boston work together to address digital inclusion, sustainable broadband adoption, and public safety. These needs are particularly acute in Boston's lowest-income, highest-crime neighborhoods. The City of Boston's three grants are linked and will, I believe, make Boston a replicable urban showcase that fulfills the goals of President Obama and Congress in ARRA.

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### Massachusetts BTOP Prioritization

Boston proposes to build a hybrid fiber/wireless network to deliver free, open-access Internet to the 117,000 households in the poorest neighborhoods in Boston, including 11,000 public housing units. This network would be integrated into Boston's existing core fiber network, which the City would continue to maintain and operate going forward. Boston has been planning for this network deployment since 2006. It has conducted three trials to determine the best technical model for urban deployment and can begin deployment within one month of grant funding.

Boston may be the only major city in the nation that met the challenging NTIA eligibility criteria for last-mile infrastructure funding in an underserved urban area. Specifically, Boston conducted a survey of broadband adoption among its targeted population, demonstrating that low adoption rates exist in Boston's proposed funded service area, as required.

In addition, this network would provide an important public safety function – creating “hot spots” for police and other first responders who need to access crime fighting and other critical data in the field rather than returning to headquarters, resulting in more time on the streets in Boston's highest-crime neighborhoods. This network would also be available for use by Boston's leading community anchor organizations. Most notably, the Codman Square Health Center plans to use the network to improve wellness and home health care delivery to constituents by broadband connection.

Other components of the consolidated Boston application would ensure that this broadband network, when built, is used at home by residents to improve their lives. Boston will expand its nationally-recognized broadband education and netbook computer distribution program, *TechnologyGoesHome* (TGH). This decade-old program has won Verizon Foundation and Apple awards for helping families of Boston schoolchildren understand how the Internet can help them to live, learn, work, earn, and play – to genuinely improve their life circumstances. Boston also will offer out-of-work adults in ten technology centers in Roxbury on-line training in how to find work and manage themselves as employees in the digital workplace. Graduates will receive a netbook computer to further their skills through at-home broadband use.

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**Massachusetts BTOP Prioritization**

Boston proposes to upgrade its 65 public computing centers (PCC) – Boston Public Library, Boston Centers for Youth and Families and Boston Housing Authority computer labs – giving residents ready access to computers and new training. PCC staff will be cross-trained in TGH, and graduates of TGH will also take home a low-cost netbook computer to utilize on Boston's new network.

## **Broadband USA Applications Database**

**Applicant Name:** City of Boston

**Project Title:** Boston's Sustainable Broadband Initiative

**Project Type:** Sustainable Adoption

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### **Executive Summary**

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Boston's three grants work together to provide the components for digital inclusion for Boston's most vulnerable citizens: broadband access, training, and adoption. Boston's network will deliver free in-home connectivity in Boston's most distressed neighborhoods, the proposed funded service area (PFSA). Boston will expand public computing center equipment and training for residents in the PFSA who largely lack home computers. This grant will fund two programs to deepen broadband adoption training and equip graduates with in-home computers for anywhere/anytime access to 21st century on-line resources.

TGH: a.Problem/Need: Access to technology in the PFSA is an issue of affordability, availability, and acquisition. Lack of reliable access to the hardware, to Internet connections and to the skills to maximize the use of technology are disadvantages tantamount to having been left back in time. Lack of access impacts education, job opportunities, health prospects -- the very means by which people improve their lives. Broadband adoption among Boston's most vulnerable cannot occur until these issues are effectively addressed. Technology Goes Home (TGH), a ten-year old school-based program, focused on 21st century skills, provides the knowledge and hardware needed for sustainable broadband adoption and digital equal opportunity.

b.Innovative Approach: TGH works because it provides mobile netbook hardware, trains in how to use integrated hardware and web applications and structures skill development and broadband access in a clear, easy-to-use framework we call "live, learn, earn, work and play online". TGH 1.0 focussed on technology skills development in teachers, students, and family members. TGH 2.0, piloted at the Frederick school for the past 36 months, focuses on broadband empowerment skills, mobile netbooks, and Internet-based applications. NTIA funding will enable all TGH 1.0 users to upgrade to version 2.0, and extend TGH 2.0 to thousands of additional users. TGH will train Public Computing Center staffs in the TGH curriculum, expanding the reach of this broadband adoption program and embedding computers in the homes of many more. TGH innovates by: 1) Training Content & Format: TGH curriculum, training, and netbooks are built around single-sign on access to "best in class" broadband content and applications. From accessing city services (food, fuel, housing) to GED prep courses and online bill payment, TGH students and families come to value the unique potential of anywhere/anytime

broadband access. 2) Structural Design: By building according to technology sector's most advanced thinking, TGH is prepared for evolutionary changes over the next five years and has already reduced per seat costs by 50% in the last two years, enabling expanded access and sustainability. 3) Access & Support: Mobile, connected hardware coupled with powerful, remote location-based services and rich media (eg the proposed WGBH "network now"), assuring that participants get key real-time information, tools and resources wherever they are. 4) Collaboration: Established agency relationships and new models for technology procurement, participant recruitment, training and support increase the value and experience for participants and a codified approach for replication.

#### TSN: Online Learning Readiness

a. Problem: In 2009, Microsoft VP Pamela Passman stated "...Technological fluency is essential to develop careers and achieve success in virtually every sector of the economy, from health care and construction to agriculture and manufacturing." Many companies rely on e-communications and train employees through e-learning.. Many of Boston's most vulnerable citizens desire to pursue careers in IT fields but lack technical skills, are ignorant of career options and how to prepare for them. Many have never tried or succeeded in e-learning environments. With high unemployment and so many jobs requiring on line capabilities, this new TSN program responds.

b. Innovative approach: TSN will implement Online Learning Readiness (OLR) to meet a critical need: training for out of work adults in technical/workforce skills through e-learning materials. Skills needed to be successful at online learning overlap those many employers are seeking: basic technical competencies, self-directedness, problem solving, individual/team work skills, effective online communication, time management, reading for comprehension. This structured yet learner-focused, 12-week program builds on the existing capacity of the TSN Centers to provide effective computer and workforce development training. Graduate receive a netbook for at-home use of this training, opening new job opportunities.

cc. Area served/demographics/estimated number of broadband subscribers:

TGH and TSN will serve the lowest income areas, the PFSA in Boston's Infrastructure Grant, Q. 8b. TGH will train 2200/3600 school-based individuals in each grant year. 400/700 will be trained at the PCCs for a total of 6900 served in the grant period, sustainable and ongoing thereafter. At least 800 individuals will participate in the OLLR program in the two grant years and at least 50% will complete the program and go for advanced level technology training or career-focused jobs. All will take home netbooks and have free broadband at home if Boston's infrastructure grant is funded, insuring 7300 broadband subscribers.

d. Qualifications: TGH has operated for 10 years, winning the 2008 Verizon Tech Savvy national award, "best in the nation" for innovative use of technology in education. TGH was singled out by MA Governor in Broadband message to Obama's Transition Team. For over 11 years the 34 social service agencies comprising the TSN have provided providing effective technology related training and access to residents in the PFSA.

e. Jobs Created/cost: Experienced, out-of-work work educators will be sought for this technology training. Cost is \$7,227,678.